

# NPOL Radar Scientist Report 1200 UTC 27 April 2011

Submitted by josephhardin on Wed, 04/27/2011 - 07:17

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Flight Date:

Wednesday, April 27, 2011

Status:

Green

Shift Summary 0000 UTC 27 April to 1200 UTC 27 Apr 2011

Technical issue:

At the beginning of the shift I learned that drop outs of data are occurring not just at the edges, but also in other radials within the sector scans. This may have something to do with the rotation rate of the antenna (currently 15 degrees/second). A possible solution is to let SIGMET run in auto mode to determine the ideal rate of rotation for the antenna dish. However, this will likely lead to longer times necessary for a volume to be completed.

A possible solution that we tested is a new scan strategy 1C. The scan rate was slowed to 10 degrees/second and the highest elevation scanned is 13.5 degrees. The highest elevation scanned was lowered due to the fact that at higher elevation scans we would have basically no returns and it was a waste of time that could have been used to start sampling a new volume. At first glance, there still seems to be some issues with data drop outs at the edges, but it looks less than with what occurs at the scan rate of 15 degrees/second.

Science:

Earlier in the shift we ran the scan strategy 4 to sample light bands of precipitation that slowly tracked north over the central facility site. In addition, starting at approximately 0540 UTC, we supported flights for the Citation and ER-2 aircraft by running scan strategy 2 and doing RHIs along the 283.5 radial. We also had a first look at NPOL imagery (DZ - reflectivity, DR - differential reflectivity, and VR - radial velocity) uploaded on RTMM. The NPOL imagery updates well, but the position of the ER-2 aircraft stopped updating at 0713 UTC this morning. This feature of RTMM will likely prove very useful in future missions to support the aircraft.

End of Summary